

REMARKS

Applicants wish to thank the Examiner in charge of this application for the cooperation and assistance rendered to applicants attorney during the personal interview courteously granted on April 27, 1995.

At the personal interview it was agreed that the amendments made to claim 30 herein, from which claim 31 directly depends, avoid the rejection of claims 30 and 31 under 35 U.S.C. § 112, second paragraph.

Likewise, it was agreed that the amendments to independent claims 8 and 30 presented herein overcome the rejection of claims 8, 18, 21, 22, 30, and 31 under 35 U.S.C. § 103 based on Anderson et al. U.S. Patent No. 5,372,629.

As discussed at the aforementioned personal interview, the method of the invention achieves the production of a permanent magnet alloy having improved stability and corrosion resistance, while improving the magnetic properties, namely intrinsic coercivity, without decreasing the remanence and Curie temperature to expand the useful temperature range for permanent magnets made from the alloy. Specifically in this regard, and in accordance with the invention, with the addition of oxygen to the composition of the permanent magnet alloy set forth in the claims, remanence is increased. Moreover, the oxygen content affects coercivity, as demonstrated by the data set forth in

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Figure 3. In addition, variations of the carbon content affects remanence and coercivity, as shown in Figure 6 and Table V.

Anderson et al. disclose the manufacture of particles of permanent magnet materials containing rare earth elements, including Nd. With the method of Anderson et al., a protective barrier layer is formed on the particles comprising a refractory compound. Hence, the powder particles have an alloy corresponding to the composition desired in the end use for the particles with a protective refractory coating thereon. The alloy composition of the particles does not contain carbon or oxygen within applicants' limits. Consequently, as discussed at the personal interview, Anderson et al. does not disclose or suggest an alloy that contains carbon and oxygen contents within applicants' claimed limits. The purpose of Anderson et al.'s protective refractory layer is to protect the powder particles from environmental degradation during fabrication operations. On the other hand, the purpose of applicants introducing carbon and oxygen to the alloy of the particles is to improve the magnetic properties, as discussed above.

None of the secondary references used by the Examiner in the rejection of claims 9-13, 15, and 16; claim 14; and claim 17, cure the deficiencies of Anderson et al.

In view of the above, favorable reconsideration of applicants' claims 8-18, 21, 22, 30, and 31 with a view to allowance is earnestly solicited.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No.

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06-0916. If a fee is required for an extension of time under 37 C.F.R. Section 1.136 not accounted for above, such extension is requested and should also be charged to our Deposit Account.

Respectfully submitted,

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